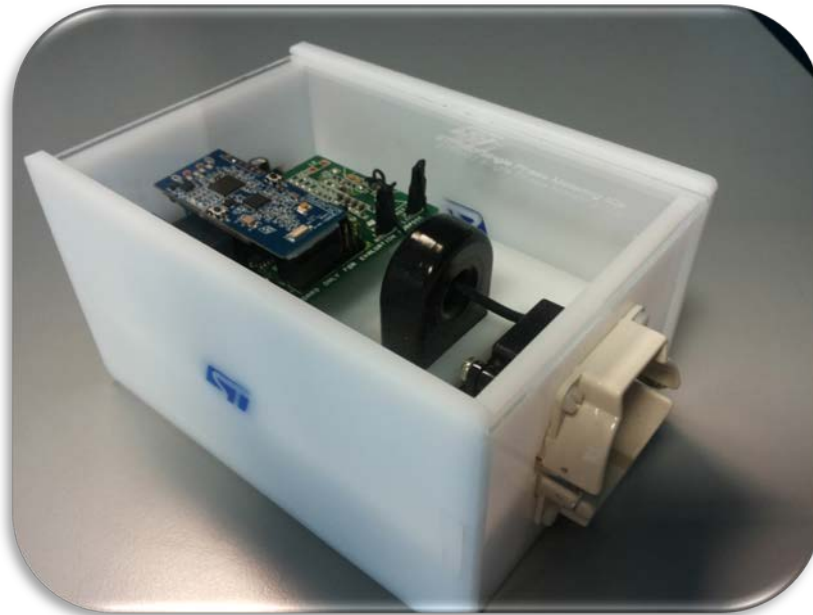


STPM3x Metering ASSP



High Flexibility

High Accuracy

Fast and Easy
Design

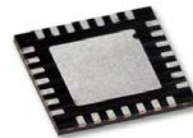
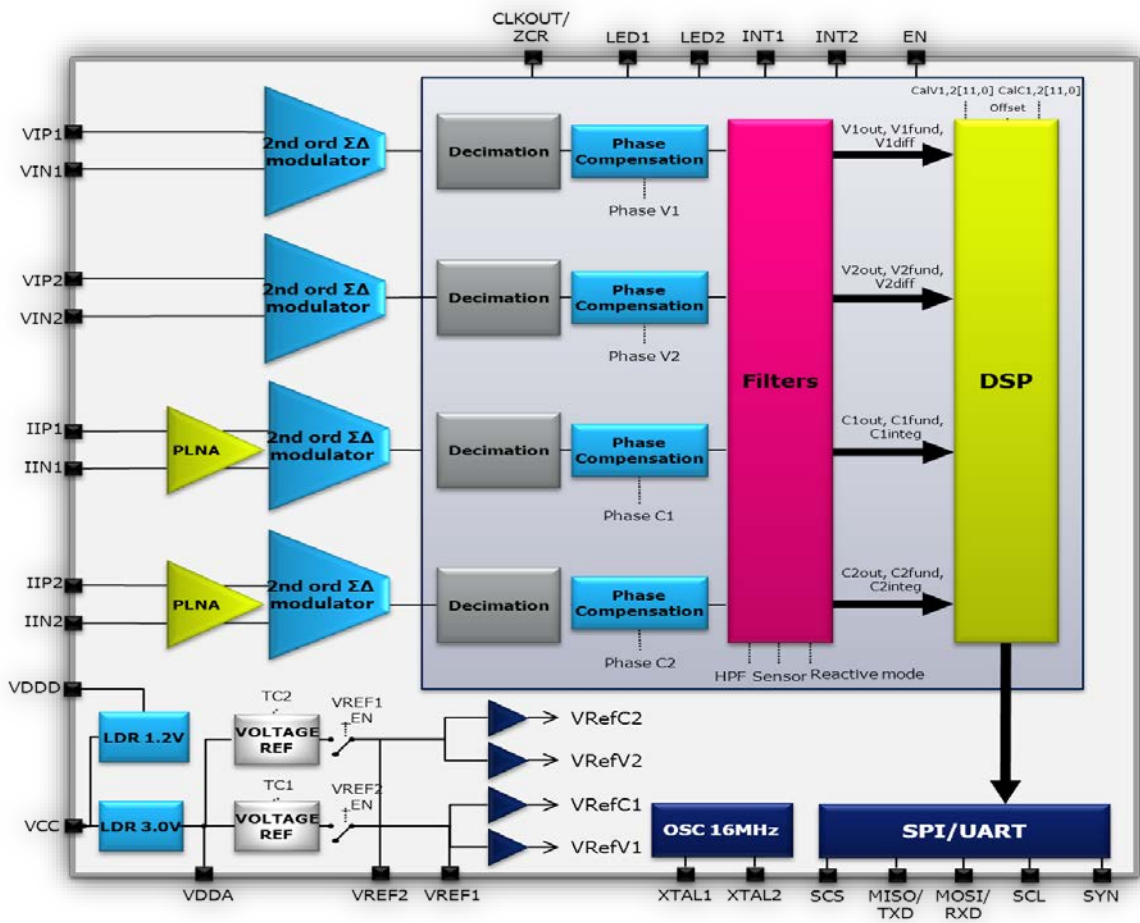
Low Cost
Manufacturing



STPM3x's High Flexibility



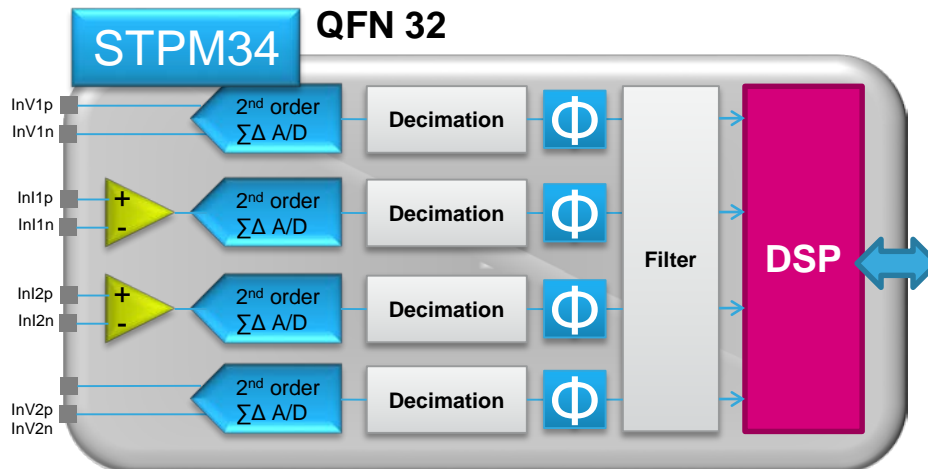
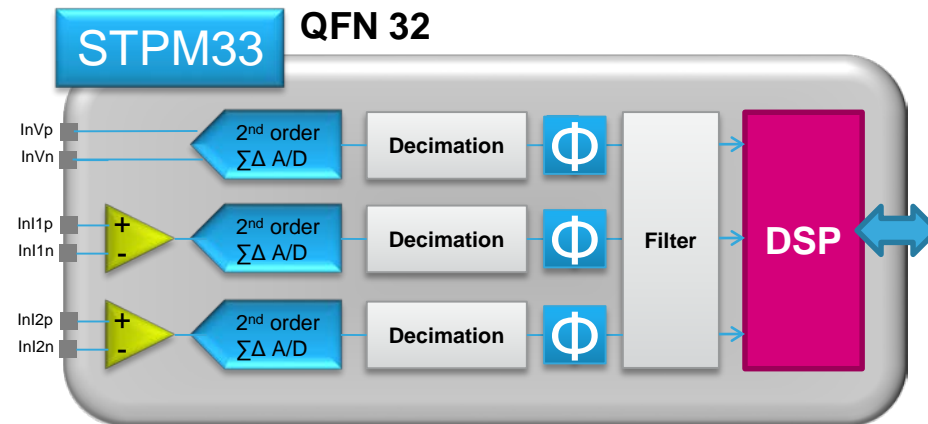
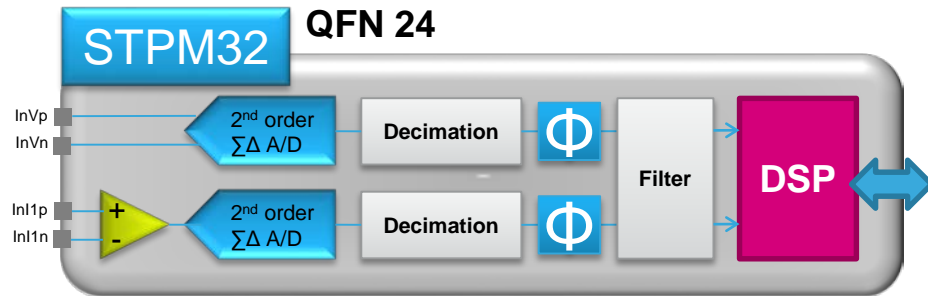
- **Twin Programmable Voltage References with independent Temperature compensation**
- **AC or DC measurements**
- **Supports single phase and multi-phase solutions**
- **Multi-phase or multiple devices applications can be synchronized using the CLKOUT pin**
- **Sensors supported:**
 - **Shunt, CT, Rogowski Coil, Hall Sensor**
- **Three part numbers (STPM32, STPM33, STPM34) with scalable features.**
- **Multiple Interfaces: 5-wire SPI, 3-wire SPI, 2-wire SPI**
- **A single design can address multiple target applications**



- **Packages : QFN32, QFN24**



STPM3x's High Accuracy



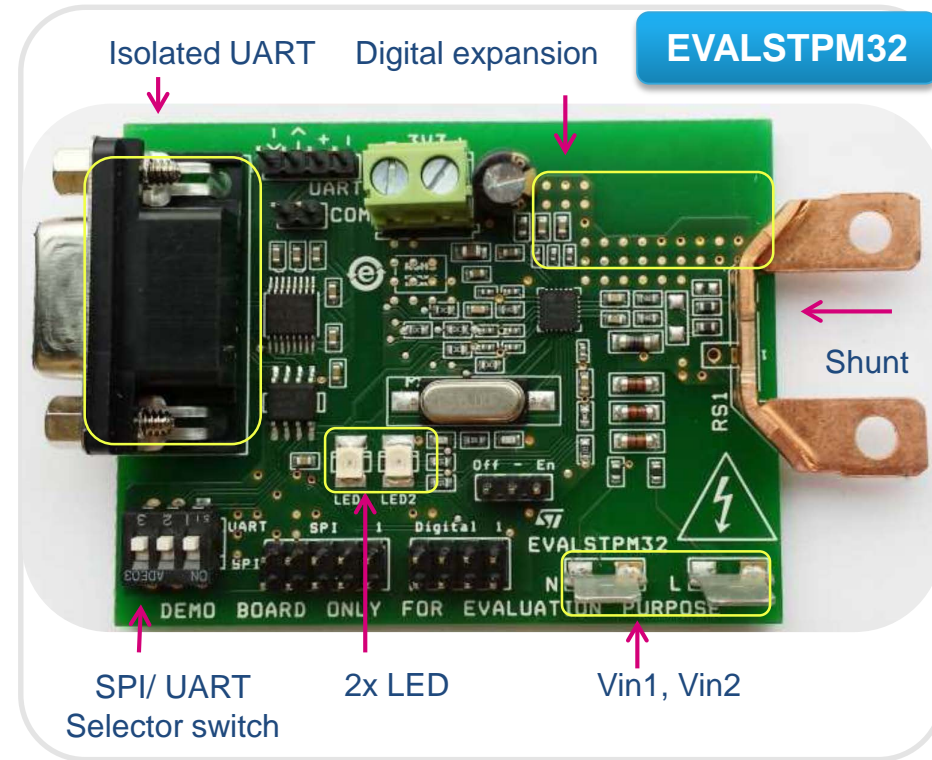
- **Active Power accuracy :**
 - <0.1% error over 5000:1 range (suitable for industrial 3-phase meter and future proof meters)
 - <0.5% error over 10000:1 range
- **Reactive Power Accuracy:**
 - <0.1% error over 2000:1 range
- **RMS Accuracy :**
 - <0.2% error over 1000:1 range
- **Up to 4 independent 24-bit 2nd order $\Sigma\Delta$ ADC's**
- **Single-point fast digital calibration for I and V**
- **1-2 Independent Vref 30ppm/°C**
- **Power measure up to 72nd Harmonic**





STPM3x Fast and Easy Design

- Interrupt management
- Sag/SWELL detection
- SPI Status
- DSP Status bits
- Basic power-related calculation
- Full MCU support
- Advanced post-processing
- Software Tools
- Firmware Libraries
- Design support



Board Sales Type

- | | |
|------------------|--------------------------------|
| ▪ EVALSTPM32 | Single Phase |
| ▪ EVALSTPM33 | Split or Single Phase w Tamper |
| ▪ EVALSTPM34 | Dual Phase |
| ▪ EVALSTPM3x-3PH | Three Phase |



STPM3x Low Cost Manufacturing

■ Minimum BOM

- Few passive external components
- 2-3 wires UART interface to MCU
- Direct connection of LED to output pins

■ Fast digital calibration

- Calibrated, programmable LED output
- Digital calibration with separated registers for Voltage and Current channels
- Single point calibration guaranteeing whole range thanks to device linearity

